State of Utah

Department of
Environmental Quality

Richard W. Sprott
Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

Title V Operating Permit

PERMIT NUMBER: 300002001
DATE OF PERMIT: September 19, 2000
Date of Last Revision: August 9, 2007

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Nucor Steel
PO Box 100
Plymouth, UT 84330

Permitted Location:

Nucor Steel
West Nucor Rd
PO Box 100
Plymouth, UT 84330

UTM coordinates: 401,000 m Easting, 4,637,500 m Northing
SIC code: 3312 (Steel Works, Blast Furnaces (Including Coke Ovens), & Rolling Mills)

ABSTRACT

Nucor Steel is an Electric Arc Furnace (EAF) shop, commonly known as a minimill. The facility is a recycling center which utilizes scrap steel as a raw feedstock. Scrap steel is purchased from a number of sources and sorted. The steel is loaded into charge buckets and transported to one of two EAFs. Oxyfuel burners and electricity are used to melt the steel into a liquid form. Alloys are added until the desired metallurgy is achieved. The molten material is then continuously molded and cut into billets for stockpiling. The billets are then reheated and transferred to the rolling mill to be shaped and shipped to the customer. Nucor is subject to 40 CFR Subpart AAa, Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983. Nucor is a major source of sulfur dioxide, oxides of nitrogen, PM_{10}, and carbon monoxide.

UTAH AIR QUALITY BOARD

By:

M. Cheryl Heying, Executive Secretary

Prepared By:

Brandy Cannon

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in Section I: General Provisions of this permit.

Annual Certification Due:	January 28 of every calendar year that this permit is in force.
Renewal application due:	March 19, 2005
Permit expiration date:	September 19, 2005
Definition of “prompt”:	written notification within 10 days.

Operating Permit History

Permit/Activity	Date Issued	Recorded Changes
Title V administrative amendment by DAQ (Project #OPP0100080008)	8/9/2007	Changes: Incorporates changes approved in DAQE-AN0100080024-07, dated June 8, 2007, including the following: SO_2, NO_x, CO, VOC limit changes on the EAF Baghouse Vent (Unit #9); NO_x limit changes on the Billet Reheat Furnace #1 and #2 (Unit #13, 14); addition of CEM for SO_2, NO_x, CO limits on the EAF Baghouse Vent (Unit #9); addition of opacity limit on the Billet Reheat Furnace #1 and #2 (Unit #13, 14); removal of scrap steel feed limit and initial performance testing requirement on the Electric Arc Furnaces (Unit #EAF 1 & 2); clarification rather than referencing rule on abrasive blasting condition for Sandblasting operations (Unit #SAND). BLDS language from NSPS Subpart AAa was added to the opacity monitoring for EAF Baghouse Vent (Unit #9). Typographical and language errors in this permit were also corrected.
Title V administrative amendment by source (Project #OPP0100080004)	11/15/2004	Changes: Incorporates changes to NSPS applicability by changes already allowed by DAQE-787-01 (9/14/01).
Title V administrative amendment by source (Project #OPP0100080002)	10/23/2001	Changes: Incorporates new and modified requirements from DAQE-787-01. The changes are detailed in an engineering review comment in this permit.
Title V initial application (Project #OPP0100080001)	9/19/2000	

Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A **Federal Enforcement.**

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B **Permitted Activity(ies).**

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C **Duty to Comply.**

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D **Permit Expiration and Renewal.**

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E **Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F **Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G **Permit Fee.**

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H **No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I **Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this

permit. (R307-415-6a(8))

I.J **Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K **Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L **Compliance Certification.**

I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by

the certification, based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice (mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M **Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b)

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N **Emergency Provision.**

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly

designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))

I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))

I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))

I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))

I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

I.O **Operational Flexibility.**

Operational flexibility is governed by R307-415-7d(1).

I.P **Off-permit Changes.**

Off-permit changes are governed by R307-415-7d(2).

I.Q **Administrative Permit Amendments.**

Administrative permit amendments are governed by R307-415-7e.

I.R **Permit Modifications.**

Permit modifications are governed by R307-415-7f.

I.S **Records and Reporting.**

I.S.1 Records.

I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and

maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))

I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.

I.S.1.b.2 The date analyses were performed.

I.S.1.b.3 The company or entity that performed the analyses.

I.S.1.b.4 The analytical techniques or methods used.

I.S.1.b.5 The results of such analyses.

I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.

I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2 Reports.

I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))

I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i)

I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. **Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit**. Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice (mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications, applications, etc.:

Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance Air & Radiation Program (mail code 8P-AR)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T **Reopening for Cause.**

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U **Inventory Requirements.**

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V Title IV and Other, More Stringent Requirements

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))

II.A.1 **Source-wide**
Permitted source

II.A.2 **Unit #6 & 7: Carbon Silo # 1 and #2 Baghouse Vents**
Controls particulate emissions generated when carbon is pneumatically loaded into the silos.

II.A.3 **Unit #10% Opacity: Selected 10% Opacity Emission Units**
Lime Silo # 1 and #2 baghouse vents, Carbon Silo #1 and #2 baghouse vents, alloy handling, and lime handling fugitive sources.

II.A.4 **Unit #MISC: Miscellaneous emissions**
Includes emissions from desalination plant, acetylene combustion, natural gas/propane combustion for comfort heating, slag handling and lab. No unit-specific applicable requirements.

II.A.5 **Unit #EMERG: Emergency equipment**
Includes emissions from miscellaneous diesel, natural gas and propane fueled emergency generators and pumps, and propane flare.

II.A.6 **Unit #SAND: Sandblasting operations**
Miscellaneous sandblasting operations.

II.A.7 **Unit #DEGTANK: Diethylene glycol storage tank**
Aboveground diethylene glycol storage tank, 12000 gallon capacity, holding material < 0.05 mmHg.

II.A.8 **Unit #MISC VOC: Painting and solvent cleaning activities**
Various process-related solvent cleaning (including parts washers) and architectural painting activities that emit volatile organic compounds. Janitorial cleaners are not included in this grouping.

II.A.9 **Unit #2 & 3: Lime Silo #1 and #2 Baghouse Vents**
Controls emissions when the lime/dolomite storage silos are filled by pneumatic transfer.

II.A.10 **Unit #EAF 1 & 2: Electric Arc Furnaces**
Two 65-ton electric arc furnaces equipped with lances and burners controlled by a direct emission control (DEC) system during melting/refining and by a canopy evacuation system during charging/tapping. Both exhaust to the EAF baghouse.

II.A.11 **Unit #9: EAF Baghouse Vent**
Emissions from the EAF furnaces captured by either the DEC or canopy flow through a spark arrestor then through the EAF baghouse before being vented.

II.A.12 **Unit #14: Billet Reheat Furnace #2**
Natural gas or propane fired furnace rated to consume 980 MMcf/yr of natural gas.

II.A.13 **Unit #13: Billet Reheat Furnace #1**

Natural gas or propane fired furnace rated to consume 1320 MMcf/yr of natural gas, equipped with a low NO_x burner.

II.A.14 **Unit #17 & 18: Contact Cooling Towers**

Two cooling towers used to cool general-use contact cooling water. No unit-specific applicable requirements.

II.A.15 **Unit #19 & 20: Non-Contact Cooling Towers**

Two cooling towers used to cool non-contact cooling water. No unit-specific applicable requirements.

II.A.16 **Unit #21: Caster Cooling Tower**

Cooling tower for contact water used for the casting operations. No unit-specific applicable requirements.

II.A.17 **Unit #1: Raw Material Fugitive Sources**

Includes scrap steel delivery, stockpiles, and loading. No unit-specific applicable requirements.

II.A.18 **Unit #4: Lime Handling Fugitive Sources**

Includes lime/dolomite delivery, stockpiling, conveyor and batching operations, feed bin stocking, and conveyor drop to charge bucket.

II.A.19 **Unit #11: EAF Dust Handling Fugitive Sources**

Includes EAF dust loading into gondola cars, EAF baghouse hoppers and conveyors, dust storage silo, and EAF dust loading to rail cars/trucks.

II.A.20 **Unit #12: Caster Roof Monitor**

Includes meltshop fugitive emissions from the ladle and tundish preheat systems, tundish/ladle skull lancing, wire alloy addition/steel stirring, and torches/cutting operations. EAF emissions not captured by the canopy or DEC may also vent at this area.

II.A.21 **Unit #15: Roll Mill**

Includes hot steel rolling, and steel product burning. No unit-specific applicable requirements.

II.A.22 **Unit #TANKS: Miscellaneous tank emissions**

Includes emissions from HCl storage tank, used oil storage tanks, two aboveground diesel storage tanks, aboveground gasoline storage tank, and propane tank venting. No unit-specific applicable requirements.

II.A.23 **Unit #24 a & b: Unpaved Roadway Fugitives**

Fugitive emissions from unpaved haul and service roads.

II.A.24 **Unit #24 c & d: Paved Roadway Fugitives**

Fugitive emissions from paved haul and service roads.

II.A.25 **Unit #8: Alloy Handling**

Includes dust from alloy delivery, storage, and transfer to charge bucket.

II.B **Requirements and Limitations**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on permitted source (Source-wide)**

II.B.1.a **Condition:**
Visible emissions shall be no greater than 20 percent opacity except as otherwise specified in this permit. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.1.a.1 **Monitoring:**
A visual opacity survey of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

When the survey is conducted by a certified observer, the opacity of each visible emission may be estimated and a reference method observation made of the emission point of highest estimated opacity. If this observation shows compliance with this limitation, no further observations are necessary. If compliance is not demonstrated, reference method observations shall be conducted of each point in order of estimated opacity until an observation shows compliance.

II.B.1.a.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b **Condition:**
Sulfur content of fuel oil shall be no greater than 0.5 percent by weight. [Origin: DAQE-AN0100080024-07] Authority: R307-203-1(1) and R307-401-8(1)(a) [BACT]

II.B.1.b.1 **Monitoring:**
Sulfur content shall be determined by inspection of the fuel sulfur-content specifications provided by the vendor in purchase records. Sulfur content shall be determined in accordance with ASTM-D-4294, or equivalent. As an alternative, verification of the sulfur content may be shown by providing copies of fuel receipts indicating that #2 fuel oil or lighter are purchased.

II.B.1.b.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.c **Condition:**

Natural gas consumption shall be no greater than 2,340 MMSCF per 12 month period not including fuel consumed by oxyfuel burners for the EAFs. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.1.c.1 **Monitoring:**

Natural gas consumption shall be determined using billing statements for the previous twelve months, with the appropriate conversion of acf to scf. The amount of fuel consumed by the EAF oxyfuel burners may be subtracted from the total gas consumption.

II.B.1.c.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.c.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.d **Condition:**

Propane consumption shall be no greater than 2,800,000 gallons per 12-month period not including fuel consumed by oxyfuel burners for the EAFs. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.1.d.1 **Monitoring:**

Propane consumption shall be determined using billing statements for the previous twelve months. The amount of fuel consumed by the EAF oxyfuel burners may be subtracted from the total gas consumption.

II.B.1.d.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.e **Condition:**

Consumption of #2 fuel oil shall be no greater than 285,000 gallons per 12 month period. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.1.e.1 **Monitoring:**

Fuel oil consumption shall be determined by oil purchase and inventory records. Each calendar month, a new 12-month total shall be calculated using data from the previous 12 months.

II.B.1.e.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.e.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.f **Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(2) and 40 CFR 60.11(d)

II.B.1.f.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.f.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.f.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.g **Condition:**

All conveyor transfer points and batching equipment drop points shall either be enclosed or be equipped with water sprays to be used whenever dry conditions warrant for dust control. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.1.g.1 **Monitoring:**

All non-enclosed points shall have visible emissions observed weekly, conducted according to 40 CFR 60, Appendix A, Method 22. The adequacy of the water sprays shall be determined by the lack of visual emissions.

II.B.1.g.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.g.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.h **Condition:**

The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners. [Origin: 40 CFR 82.30(b)] Authority: 40 CFR 82.30(b)

II.B.1.h.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.

II.B.1.h.2 **Recordkeeping:**

All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.h.3 **Reporting:**

All reports required in 40 CFR 82, Subpart B shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.i **Condition:**

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Origin: 40 CFR 82.150(b)] Authority: 40 CFR 82.150(b)

II.B.1.i.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.i.2 **Recordkeeping:**

All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.i.3 **Reporting:**

All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.j **Condition:**

A Risk Management Plan (RMP) developed in accordance with 40 CFR Part 68 shall be submitted to the United States Environmental Protection Agency not later than the applicable date in 40 CFR 68. [Origin: 40 CFR Part 68] Authority: 40 CFR 68

II.B.1.j.1 **Monitoring:**

The record serves as monitoring.

II.B.1.j.2 **Recordkeeping:**

A copy of the Risk Management Plan shall be available to the Executive Secretary upon request along with a copy of the transmittal letter to EPA.

II.B.1.j.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2 **Conditions on Electric Arc Furnaces (Unit #EAF 1 & 2)**

II.B.2.a **Condition:**
Visible emissions shall be less than 6 percent opacity for emissions due solely to the operation of any EAF(s). [Origin: DAQE-AN0100080024-07] Authority: 40 CFR 60.272a(a)(3) and R307-401-8(1)(a) [BACT]

II.B.2.a.1 **Monitoring:**
Visible emissions observations shall be performed by a certified visible emission observer at least once per day of operation. The observations shall occur when the furnace is operating in the melting and refining period. The arithmetic average of 24 consecutive 15-second opacity observations shall be taken in accordance with Method 9. The opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

II.B.2.a.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.b **Condition:**
Hours of operation shall be no greater than 8,200 hours per rolling 12 month period. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.2.b.1 **Monitoring:**
The permittee shall calculate a 12-month total based on the first day of each month using data from the previous 12 months. Hours of operation shall be determined by supervisor's monitoring and maintenance of a daily operations log.

II.B.2.b.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.b.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3 **Conditions on EAF Baghouse Vent (Unit #9)**

II.B.3.a **Condition:**
Visible emissions shall be less than 3 percent opacity. [Origin: DAQE-AN0100080024-07] Authority: 40 CFR 60.272a(a)(2) and R307-401-8(1)(a) [BACT]

II.B.3.a.1 **Monitoring:**

In lieu of installing a continuous opacity monitoring system, the permittee shall demonstrate compliance with the visible emission limitation by monitoring the following.

a) Visible emissions observations shall be performed by a certified visible emission observer at least once per day of operation. The observations shall occur when the furnace is operating in the melting and refining period. These observations shall be taken in accordance with Method 9, and, for at least three 6-minute periods, the opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emissions, only one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

b) A bag leak detection system meeting the following specifications and requirements shall be installed and continuously operated on the affected emission unit.
   i) The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.
   ii) The bag leak detection system sensor shall provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger.)
   iii) The bag leak detection system shall be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to paragraph (iv). The alarm shall be located such that it can be heard by the appropriate plant personnel.
   iv) For each bag leak detection system, the permittee shall develop and submit to the Executive Secretary, for approval, a site-specific monitoring plan that addresses the items identified in (a) through (e) below. For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). The permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following:
      (a) Installation of the bag leak detection system;
      (b) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established;
      (c) Operation of the bag leak detection system including quality assurance procedures;
      (d) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and
      (e) How the bag leak detection system output shall be recorded and stored.

v) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

vi) Following initial adjustment, the permittee shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Executive Secretary except as provided for in (a) and (b) below.
   (a) Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under paragraph (iv) above.
   (b) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under II.B.3.a.1.a) and the alarm on the bag leak detection system does not sound, the permittee shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.

vii) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor shall be installed downstream of the baghouse and upstream of any wet scrubber.

viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

ix) The permittee shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. The cause of the alarm shall be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:
   (a) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;
   (b) Sealing off defective bags or filter media;
   (c) Replacing defective bags or filter media or otherwise repairing the control device;
   (d) Sealing off a defective baghouse compartment;
   (e) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and
   (f) Shutting down the process producing the particulate emissions

II.B.3.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

Additionally, the following shall be maintained in accordance with Provision I.S.1 of this permit for each bag leak detection system.

a) Records of the bag leak detection system output;
b) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
c) Records of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.

II.B.3.a.3 **Reporting:**

In addition to the reporting requirements specified in Section I of this permit, the permittee shall submit a written report of exceedances of the control device opacity to the Executive Secretary semi-annually. Exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater. (40 CFR 60.276a(b))

II.B.3.b **Condition:**

A minimum of five fans shall be operated at all times when the baghouse is in operation. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.b.1 **Monitoring:**

The number of fans in operation on the EAF baghouse shall be checked once per day.

II.B.3.b.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.c **Condition:**

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the EAF emissions total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of hole in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. [Origin: DAQE-AN0100080024-07] Authority: 40 CFR 60.274a(d) (Subpart AAa)

II.B.3.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.3.c.2 **Recordkeeping:**

Results of monthly inspections and any maintenance performed shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.3.c.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.d **Condition:**

The permittee shall calibrate and maintain a fan ampere and damper setting system. This system shall provide records of fan operations with readings taken once per shift and provide a fan operation log that records excursion events such as fan shut downs and startups.

Required fan amperes and damper positions shall be those established during the most recent compliance test of the system. The permittee may petition the Executive Secretary for re-establishment of these parameters whenever the EAF operating conditions upon which the parameters were previously established are no longer applicable.

As an alternative, the permittee may install, operate and maintain either a continuous volumetric monitoring device, or a negative pressure monitoring system (subsequent to performing an initial compliance test) meeting the following requirements:

Continuous volumetric monitoring device:
This system shall provide a continuous record of air flow in all ducts evacuating the EAFs and roof canopy. The monitoring device may be installed in any location in the exhaust ducts such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of plus or minus 10% over its normal operating range and shall be calibrated according to manufacturer's instructions. The Executive Secretary may require the permittee to demonstrate the accuracy of the monitoring device(s) according to method 1 and 2, Appendix A, 40 CFR 60. Required air flows will be those established during the initial compliance test. The initial compliance test shall measure the exhaust flow and damper settings for each separate duct and be recorded during the charging, melting, and tapping stages for each EAF.

Negative pressure monitoring system:
This system shall consist of a monitoring device that continuously records the negative pressure in each duct for all ducts used to evacuate the emissions from the EAFs. The pressure shall be recorded as 15-minute integrated averages. The monitoring devices shall be installed in any appropriate location in the ducts such that reproducible results are obtained and shall be upstream of any damper in the duct. The pressure monitoring device shall have an accuracy of plus or minus five (5) mm of water gauge over its normal operating range and shall be calibrated according to manufacturer's instructions. Measurement of the minimum negative pressure recorded during the initial performance test for each duct shall be the minimum allowed negative pressure during charging, melting and tapping stages for each furnace. The permittee shall maintain a log of the negative pressure in integrated 15-minute averages of each furnace during all stages. The initial compliance test shall measure the negative pressure in each separate duct and record during charging, melting, and tapping stages for each furnace. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.d.1 **Monitoring:**

(a) During normal operational periods, records required for this permit condition will serve as monitoring.

(b) If a performance test of a system allowed in this provision is to be conducted, the permittee shall advise the Executive Secretary of the test date at least 30 days prior to the test. Shop opacity observations shall be conducted in accordance with 40 CFR 60.11, which requires a minimum of three hours of observations (30 6-minute averages). During the test, the permittee shall monitor the following during the charging, melting and tapping stages for each furnace:
   (1) Charge weights and materials, and tap weights and materials;
   (2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing;
   (3) Control device parameters appropriate to the system tested:
      (i) Fan amperage and damper settings: the number of fans operating, average fan amperage and damper positions for each separate duct.
      (ii) Continuous volumetric monitoring device: the exhaust flow rate and damper settings for each separate duct.
      (iii) Negative pressure monitoring system: the negative pressure in each separate duct.

II.B.3.d.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.e **Condition:**

Emissions of CO shall be no greater than 1,200 lbs/hr based on a 1-hour average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.e.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the CO emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.e.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.e.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.f **Condition:**

Emissions of CO shall be no greater than 682.93 lbs/hr based on an 8-hour average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.f.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the CO emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.f.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.f.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.g **Condition:**

Emissions of CO shall be no greater than 2,800 tons per year based on a rolling 12-month average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.g.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the CO emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. The emissions shall be determined on a rolling 12-month total. Within the first 20 days of each month, the total shall be calculated for each calendar month and added to the previous 11 months data.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.g.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.g.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.h **Condition:**

Emissions of NO_x shall be no greater than 245 tons per year based on a rolling 12-month average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.h.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the NO_x emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. The emissions shall be determined on a rolling 12-month total. Within the first 20 days of each month, the total shall be calculated for each calendar month and added to the previous 11 months data.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.h.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.h.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.i **Condition:**

Emissions of TSP shall be no greater than 25.07 lbs/hr and 0.0030 grains/dscf (68 degrees F, and 29.92 in Hg). [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT] and 40 CFR 60.272a(a)(1)

II.B.3.i.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every year. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) Sample Method - 40 CFR 60. Appendix A, Method 5D. The minimum sample time and sample volume shall be 4 hours and 160 dscfm.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.3.i.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.i.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.3.j **Condition:**

Emissions of PM_{10} shall be no greater than 20.06 lbs/hr and 0.0024 grains/dscf (68 degrees F, and 29.92 in Hg). [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.j.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every year. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a or 202. The back half condensibles shall also be tested using a method specified by the Executive Secretary.

(3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}, however the back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(4) Alternatively, 40 CFR 60, Appendix A, Method 5D may be used to determine total TSP emissions. If TSP emissions are below the PM_{10} limit that will constitute compliance with the PM_{10} limit. If TSP emissions are not below the PM_{10} limit, the permittee shall retest using the methods allowed in paragraphs (1)-(3) above within 180 days of the TSP test date.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.3.j.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.j.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.3.k **Condition:**

Emissions of SO_2 shall be no greater than 194.96 lbs/hr based on a 3-hour average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.k.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the SO_2 emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.k.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.k.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.l **Condition:**

Emissions of SO_2 shall be no greater than 137.07 lbs/hr based on a 24-hour average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.l.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the SO_2 emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.l.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.l.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.m **Condition:**

Emissions of SO_2 shall be no greater than 322 tons per year based on a rolling 12-month average. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.m.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the EAF baghouse exhaust stack. The permittee shall record the output of the system for measuring the SO_2 emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B. The emissions shall be determined on a rolling 12-month total. Within the first 20 days of each month, the total shall be calculated for each calendar month and added to the previous 11 months data.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.3.m.2 **Recordkeeping:**

Results of monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.3.m.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.n **Condition:**

Emissions of VOC shall be no greater than 22.20 lbs/hr. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.3.n.1 **Monitoring:**

Stack testing shall be performed as follows:

(a) Frequency. Emissions shall be tested every five years, based on the date of the most recent stack test. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 5D for monovent baghouses. Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) VOC emissions shall be determined by simultaneously using EPA Method 25A (Total Gaseous Organic concentration) with two analyzers, with one analyzer configured to read only methane. The difference between the total organic detector and the methane detector shall constitute the VOC measurement. Method 2 shall be used to determine stack gas velocity and volumetric flow rate.

(e) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.3.n.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.3.n.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.4 **Conditions on Billet Reheat Furnace #2 (Unit #14)**

II.B.4.a **Condition:**

Emissions of NO_x shall be no greater than 8.0 lbs/hr. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.4.a.1 **Monitoring:**

Stack testing shall be performed as specified here:

(a) Frequency. The source shall be tested every three years. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. In addition, Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods to be used:

(1) To determine stack volumetric flow rate - 40 CFR 60, Method 2.

(2) To test for NO_x emissions - 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E.

(e) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors to give the results in the specified units of the emission limitation.

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.4.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.4.a.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.4.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.4.b.1 **Monitoring:**

In lieu of monitoring via visible emission observations, fuel usage shall be monitored to demonstrate that only natural gas or propane is being used as fuel.

II.B.4.b.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.4.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5 **Conditions on Billet Reheat Furnace #1 (Unit #13)**

II.B.5.a **Condition:**

Emissions of NO_x shall be no greater than 15.0 lbs/hr. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.5.a.1 **Monitoring:**

Stack testing shall be performed as specified here:

(a) Frequency. The source shall be tested every three years. Tests may also be required at the direction of the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. In addition, Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods to be used:

(1) To determine stack volumetric flow rate - 40 CFR 60, Method 2.

(2) To test for NO_x emissions - 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E.

(e) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors to give the results in the specified units of the emission limitation.

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.5.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.5.a.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.5.b **Condition:**
Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.5.b.1 **Monitoring:**
In lieu of monitoring via visible emission observations, fuel usage shall be monitored to demonstrate that only natural gas or propane is being used as fuel.

II.B.5.b.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.5.b.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6 **Conditions on EAF Dust Handling Fugitive Sources (Unit #11)**

II.B.6.a **Condition:**
Visible emissions shall be less than 10 percent opacity. [Origin: 40 CFR 60 Subpart AAa]
Authority: 40 CFR 60.272a(b)

II.B.6.a.1 **Monitoring:**
Opacity observations of dust-handling activities shall be conducted each January and July. An opacity observation shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 on the emission unit that appears to have the highest opacity. If this unit does not exceed the opacity limitation, no further observations of any of the emission units will be required. If this unit exceeds the opacity limitation, the emission unit with the next highest opacity shall be observed until an emission unit does not exceed the opacity limitation. All emission units not observed shall be considered to not exceed the opacity limitation.

II.B.6.a.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.6.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7 **Conditions on Unpaved Roadway Fugitives (Unit #24 a & b)**

II.B.7.a **Condition:**
Visible emissions shall be no greater than 20 percent opacity. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.7.a.1 **Monitoring:**
Unpaved roads and other operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated in sufficient frequency and quantity to maintain the surface material in a damp/moist condition except when freezing conditions exist.

II.B.7.a.2 **Recordkeeping:**

Records of water treatment shall be kept for all periods including the following items: date, number of treatments made, dilution rate, and quantity, rainfall received if any and the approximate amount, and the time of day treatments were made.

II.B.7.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8 **Conditions on Paved Roadway Fugitives (Unit #24 c & d)**

II.B.8.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.8.a.1 **Monitoring:**

Paved roads shall be periodically swept or water flushed as conditions warrant.

II.B.8.a.2 **Recordkeeping:**

Records of cleaning paved roads shall be kept as described in Provision I.S.1 of this permit.

II.B.8.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.9 **Conditions on Selected 10% Opacity Emission Units (Unit #10% Opacity)**

II.B.9.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN0100080024-07]
Authority: R307-401-8(1)(a) [BACT]

II.B.9.a.1 **Monitoring:**

Opacity observations of dust-handling activities shall be conducted each January and July. An opacity observation shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 on the emission unit that appears to have the highest opacity. If this unit does not exceed the opacity limitation, no further observations of any of the emission units will be required. If this unit exceeds the opacity limitation, the emission unit with the next highest opacity shall be observed until an emission unit does not exceed the opacity limitation. All emission units not observed shall be considered to not exceed the opacity limitation.

II.B.9.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.9.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10 **Conditions on Emergency equipment (Unit #EMERG)**

II.B.10.a **Condition:**
Emergency generators and pumps shall only be used during the periods when electric power from the public utilities is interrupted and/or during maintenance. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.10.a.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.

II.B.10.a.2 **Recordkeeping:**
Records documenting generator and/or pump usage shall be kept in a log. The log shall show for each generator and/or pump: the date of use, the duration in hours of usage, and the reason for each usage. Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.10.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11 **Conditions on Sandblasting operations (Unit #SAND)**

II.B.11.a **Condition:**
Visible emissions shall not exceed 40% opacity, except for an aggregate period of three minutes in any one hour. [Origin: R307-206] Authority: R307-206

II.B.11.a.1 **Monitoring:**
(a) Visible emissions shall be measured using EPA Method 9 every six months if abrasive blasting operations are conducted. Visible emissions from intermittent sources shall use procedures similar to Method 9, but the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply.
(b) Visible emissions from unconfined blasting shall be measured at the densest point of the emission after a major portion of the spent abrasive has fallen out, at a point not less than five feet nor more than twenty-five feet from the impact surface from any single abrasive blasting nozzle.
(c) An unconfined blasting operation that uses multiple nozzles shall be considered a single source unless it can be demonstrated by the permittee that each nozzle, measured separately, meets the emission and performance standards provided in R307-206-2 through 4.
(d) Visible emissions from confined blasting shall be measured at the densest point after the air contaminant leaves the enclosure.

II.B.11.a.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.11.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.12 **Conditions on Painting and solvent cleaning activities (Unit #MISC VOC)**

II.B.12.a **Condition:**
Emissions of VOC shall be no greater than 6.75 tons per 12-month period. [Origin: DAQE-AN0100080024-07] Authority: R307-401-8(1)(a) [BACT]

II.B.12.a.1 **Monitoring:**
Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months data.

II.B.12.a.2 **Recordkeeping:**
Records shall include the following data for each item used:

(1) Name of the VOC emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemicals, compounds, toxics, isocyanates, etc;

(2) Quantity of VOC-containing materials used (gallons);

(3) Density of VOC-containing materials used (pounds per gallon);

(4) Percent by weight of all VOCs in each material.

(5) The total quantity of VOCs used each month shall be the sum of the VOC usage calculated for each material by the following procedure:

VOC usage (lbs) = [% VOC by Weight/100] x [Density (lb/gal)] x [Quantity Consumed (gal)]

VOC usage (tons) = VOC usage (lbs) / 2000

(6) The quantity of VOC reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated in step (5), to provide the monthly total VOC emissions.

II.B.12.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C Emissions Trading.
(R307-415-6a(10))

Not applicable to this source.

II.D Alternative Operating Scenarios.
(R307-415-6a(9))

Not applicable to this source.

SECTION III: PERMIT SHIELD

A permit shield was not granted for any specific requirements.

SECTION IV: ACID RAIN PROVISIONS

This source is not subject to Title IV. This section is not applicable.

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates	DAQE-AN0100080024-07 dated June 8, 2007

1. Comment on an item originating in this permit regarding Source-wide
   Nucor fiscal year definition: This permit refers to a fiscal year. For accounting purposes Nucor's year is divided up into 52 week periods. The year begins on the Sunday closest to January 1. [Last updated July 30, 2007 (12/15/1999)]

2. Comment on an item originating in R307-203-1 regarding Source-wide
   Alternative sulfur content of fuel monitoring: Nucor requested and received approval to perform alternative monitoring to verify compliance with the sulfur content of diesel fuel (DF). The alternative monitoring consisted of verification that #2 diesel fuel was being burned (see DAQ letter DAQE-1209-95 dated December 26, 1995). The equipment that burns diesel fuel at Nucor is only capable of burning #2, or lighter; therefore to monitor that all they burn is #2 diesel fuel is environmentally inconsequential. To burn another fuel would require an NSR action at a minimum. Therefore, the verification of sulfur content required in the permit condition may be met by demonstrating that only #2 or lighter diesel fuel is used. Starting with DAQE-787-01, Nucor is subject to a sulfur limit of 0.5 wt%, which is more stringent than the 0.85 lb/MMBtu limit previously imposed (0.5 wt% in #2 DF is about 0.26 lb/MMBtu, based on density of 7.3 lb/gal and 139,600 Btu/gal). The approved alternate monitoring is still appropriate. [Last updated July 30, 2007 (10/15/2001)]

3. Comment on an item originating in this permit regarding Source-wide
   Changes from AA to AAa: The following changes were made when the NSPS applicability was changed from AA to AAa: exceptions for charging and tapping were deleted (though these emissions are still covered under site-wide 20% limit and monitoring); requirement to record time and duration of charge was deleted; monitoring was standardized (2 versions in previous permit); and citations were updated. [Last updated July 30, 2007 (9/22/2004)]

4. Comment on an item originating in R307-205 regarding Source-wide
   Fugitive dust requirements: Fugitive dust rules at R307-205 apply. However, the BACT conditions for paved and unpaved roads in this approval order are at least as stringent. Therefore, the BACT requirements are included in the permit. [Last updated July 30, 2007 7/10/2000)]

5. Comment on an item originating in this permit regarding Source-wide
   Monitoring stringency for propane and natural gas limits potentially changed: The monitoring for natural gas and propane consumption originally required the subtraction of the fuel used by the EAF oxyfuel burners. Nucor requested that the subtraction be optional. DAQ agreed because the end result is potentially more stringent. Now Nucor MAY subtract the oxyfuel burners. [Last updated July 30, 2007 (9/28/2001)]

6. Comment on an item originating in R307-203-1 regarding Source-wide

   Sulfur content of fuel monitoring minor wording change: The monitoring condition for sulfur content of fuel in the final permit was changed from the text in the public comment version. The earlier version implied that the alternative monitoring by showing the type of fuel purchased was restricted to #2 diesel. The current language, which is used in a recently-issued permit, correctly shows "#2 or lighter". [Last updated July 30, 2007 (9/18/2000)]

7. Comment on an item originating in 1997 Notice of Intent regarding Unit #11: EAF Dust Handling Fugitive Sources

   Dust handling sources not covered in EAF Dust Handling Fugitive Sources: EAF dust handling from canopy/DEC dropout chamber operations occur inside the meltshop and are controlled by the canopy system. The emission points listed in the emission unit description in this permit are outside of the meltshop. Additionally, the spark arrestor directly upstream from the baghouse has been determined to be inherent process equipment, not a control device. [Last updated July 30, 2007 (3/27/2000)]

8. Comment on an item originating in 40 CFR 60 Subpart AAa regarding Unit #9: EAF Baghouse Vent

   Particulate limit stringency review: The NSPS for Electric Arc Furnace's, 40 CFR 60 Subpart AAa, at para 60.272a(a)(1) limits the emission of particulate matter from a control device (in this case a baghouse) to 0.0052 gr/dscf. Approval Order DAQE-AN0100080024-07 limits the emission of particulate matter to 0.0030 gr/dscf which is more stringent than the NSPS and is the limit in this permit. [Last updated July 30, 2007 (9/22/2004)]

9. Comment on an item originating in this permit regarding Unit #DEGTANK: Diethylene glycol storage tank

   Removal of Subpart Kb recordkeeping: The requirement to maintain the design records for this tank has been removed, since the modifications to 40 CFR 60 Subpart Kb in 2003 eliminated the requirement. [Last updated July 30, 2007 (9/22/2004)]

10. Comment on an item originating in 40 CFR 60 Subpart AAa regarding Unit #EAF 1 & 2: Electric Arc Furnaces

    NSPS "shop opacity" monitoring clarification: 60.271a(a) defines "shop opacity" as "the arithmetic average of 24 or more opacity observations of emissions from the shop taken in accordance with Method 9 ... " EPA regional staff previously expressed concern over the potential to read 60.271(k) and this definition as requiring "a series of 24 six-minute Method 9 readings (i.e., 144 minutes)". Method 9 states that a minimum of 24 observations shall be made at 15-second intervals. The inclusion of the phrase "for applicable time periods" in 60.271(k) appears to infer that a standard six-minute observation is meant, with multiple six-minute observations required for different regulatory purposes. 60.273(d) and 60.273a(d) each state "Shop opacity shall be determined as the arithmetic average of 24 or more consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9". This seems to confirm the above interpretation; this interpretation should be used when dealing with "shop opacity" (nominally 6%). [Last updated July 30, 2007 (11/5/2004)]

11. Comment on an item originating in 40 CFR 60 Subpart AAa 60.274a(b,c,f,g) regarding Unit #EAF 1 & 2: Electric Arc Furnaces

    NSPS EAF monitoring requirements: The approval order requires monitoring of the EAF

air flow system in one of three different ways. These approval order conditions were originally based on the requirements of 40 CFR 60.274(b) and (c), and are equivalent to or more stringent than the NSPS language. Subpart AAa is identical to Subpart AA in the related paragraphs, so the stringency review is still valid once AAa is triggered. Division staff has confirmed that all requirements of these NSPS conditions and the related requirements in the NSPS have been included in this permit.

Comparisons:Fan amps and damper settings: 60.274a(b) requires a check and record of these values once per shift. The AO and NSPS are equivalent on this condition.

Volumetric flow in ducts: 60.274a(b) requires monitoring of flow through each separately ducted hood; the AO required a record of air flow in all ducts evacuating the EAF and roof canopy. Reproducibility and accuracy requirements are identical between the two conditions. The AO and NSPS are equivalent on this condition.

60.274a(c) requires determination of the settings for either of the above monitoring situations whenever a compliance test is done for shop opacities. This language is included in the monitoring for the emission control system parameter monitoring condition, where both shop opacity and system parameters must be measured during any performance test to establish those parameters.

The AO also allows an option to monitor the negative pressure in the ducts used to evacuate emissions from the furnaces. These ducts are active during melting and refining, are not water-cooled and are separate from the overhead canopy ducts, though both set draw emissions to the EAF baghouse. The AO language for this option is similar to 60.274a(f) and (g), with minor differences. However, 60.274a(f) and (g) do not apply if the source is doing daily shop opacities as Nucor is. Therefore, this AO option is not likely to be used, and is included in the OP only to carry over the AO condition in full. [Last updated July 30, 2007 (5/2/2007)]

12. Comment on an item originating in 40 CFR 60.273a(d) regarding Unit #EAF 1 & 2: Electric Arc Furnaces

    NSPS EAF static pressure monitoring requirements: Nucor has opted to perform daily visible emissions observations of the shop opacity. 40 CFR 60.273a(d) relieves the source of the requirement to install a furnace static pressure monitoring device if observations of shop opacity are conducted according to certain criteria. These criteria are included in this permit, so Nucor is not required to have a furnace static monitoring device. [Last updated July 30, 2007 (9/22/2004)]

13. Comment on an item originating in DAQE-AN0100080024-07 regarding Unit #EAF 1 & 2: Electric Arc Furnaces

    Fan amperage and damper setting compliance values on file: Approval Order condition 14 reflects a monitoring requirement from 40 CFR Subpart AA that requires monitoring of the pollution control equipment on an EAF based on the results from the initial compliance inspection. Subpart AAa has the same language. Nucor has completed such performance tests and DAQ has those results. A copy of the results will be stored with this permit for reference as opposed to reproducing the results in the permit. The requirement to monitor the pollution control system (fan amps, etc) is included in this permit with the appropriate language referencing the results of the performance tests. [Last updated July 30, 2007 (5/2/2007)]